



12A5

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**POWER AMPLIFIER PENTODE**

Heater	Cathode Unipotential Cathode		
Heater Arrangement	<u>Series</u> *	<u>Parallel</u> **	
Voltage	12.6	6.3	a-c or d-c volts
Current	0.3	0.6	amp.
Maximum Overall Length			4-3/16"
Maximum Seated Height			3-9/16"
Maximum Diameter			1-9/16"
Bulb			ST-12
Base			Small 7-Pin
Pin 1-Heater		Pin 5-Cathode	
Pin 2-Plate		Pin 6-Heater Midtap	
Pin 3-Screen		Pin 7-Heater	
Pin 4-Grid			
Mounting Position	BOTTOM VIEW (7E)		Any

BOTTOM VIEW (7F)

AMPLIFIER

Plate Voltage	180 max.	volts
Screen Voltage	180 max.	volts
Plate Dissipation	8.25 max.	watts
Screen Dissipation	2.5 max.	watts
Typical Operation and Characteristics - Class A₁ Amplifier:		
Plate Voltage	100	180 volts
Screen Voltage	100	180 volts
Grid Voltage	-15	-25 volts
Peak A-F Grid Volt.	15	25 volts
Zero-Sig. Plate Cur.	17	45 ma.
Max.-Sig. Plate Cur.	19	48 ma.
Zero-Sig. Screen Cur.	3	8 ma.
Max.-Sig. Screen Cur.	6.5	14 ma.
Plate Resistance	50000	35000 approx. ohms
Transconductance	1700	2400 μ mhos
Load Resistance	4500	3300 ohms
Total Harm. Dist.	12	11 %
Second Harm. Dist.	8.5	6.5 %
Third Harm. Dist.	8	8 %
Max.-Sig. Power Output	0.8	3.4 watts

■ In circuits where the cathode is not directly connected to the heater, the potential difference between heater and cathode should be kept as low as possible.

* Heater voltage applied across the two sections in series between pins #1 and #7.

** Heater voltage applied across the two sections in parallel between pin #6 and pins #1 and #7 connected together.

○ The type of coupling used should not introduce too much resistance in the grid circuit. Transformer- or impedance-coupling devices are recommended. When the grid circuit has a resistance not higher than 0.1 megohm, fixed bias may be used; for higher values, cathode bias is required. With cathode bias, the grid circuit may have a resistance not to exceed 0.5 megohm.

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RCA RADOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

TENTATIVE DATA